int const motorPin = 9;

int const potPin = A0;

int potVal;

int pwmOut;

void setup() {

 pinMode(motorPin, OUTPUT);

 pinMode(potPin, INPUT);

}

void loop() {

 potVal = analogRead(potPin);

 pwmOut = map(potVal, 0, 1023, 0, 255);

 analogWrite(motorPin, pwmOut);

}